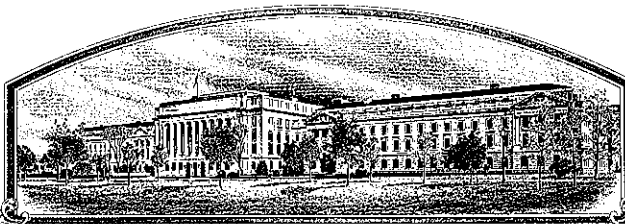


No.

9500267



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

**Bredemeyer Bros.**

Whereas, THERE HAS BEEN PRESENTED TO THE

**Secretary of Agriculture**

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED, PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR USING IT FOR ANY OF THE ABOVE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. IN THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS SPECIFIED BY THE OWNER OF THE SEED. (STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

**WHEAT, COMMON**

**'Winmaster'**

*In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this thirty-first day of May in the year of our Lord one thousand nine hundred and ninety-six.*

Attest:

*Martha A. Stanton*  
Commissioner  
Plant Variety Protection Office  
Agricultural Marketing Service

*Samuel J. Hittman*  
Secretary of Agriculture



U.S. DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE  
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a).

## APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) (as it is to appear on the Certificate)  Bredemeyer Bros.		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER		3. VARIETY NAME  Winmaster <sup>deleted</sup> <sub>letter</sub> AAA 68pt 1995	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)  1021 West Street Winters, TX 79567		5. TELEPHONE (include area code)  (915)754-4250		<b>FOR OFFICIAL USE ONLY</b> PVPO NUMBER 9500267 DATE August 8, 1995 FILING AND EXAMINATION FEE 2450.00 DATE August 8, 1995 CERTIFICATION FEE 300.00 DATE April 29, 1996	
		6. FAX (include area code)  (915)754-5389			
7. GENUS AND SPECIES NAME  Triticum Aestivum		8. FAMILY NAME (Botanical)  Gramineae			
9. CROP KIND NAME (Common name)  Wheat, Common					
10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) (Common name)  Partnership					
11. IF INCORPORATED, GIVE STATE OF INCORPORATION  -		12. DATE OF INCORPORATION  -			
13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS  Randall Conner, Agent 108 South Melwood Winters, TX 79567				14. TELEPHONE (include area code)  (915)754-5373	
				15. FAX (include area code)  (915)754-5389	
16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse)					
a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of the Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Applicant's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to PVPO)					
17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? (See Section 83(a) of the Plant Variety Protection Act)? <input checked="" type="checkbox"/> YES (If "yes," answer items 18 and 19 below) <input type="checkbox"/> NO (If "no," go to item 20)					
18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED? <input checked="" type="checkbox"/> FOUNDATION <input checked="" type="checkbox"/> REGISTERED <input checked="" type="checkbox"/> CERTIFIED		
20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES? <input type="checkbox"/> YES (If "yes," give names of countries and dates) <input checked="" type="checkbox"/> NO					
21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.  The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.  Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF APPLICANT (Owner(s))  Randall Conner			SIGNATURE OF APPLICANT (Owner(s))  Rodrick Bredemeyer		
NAME (Please print or type)  Randall Conner			NAME (Please print or type)  Rodrick Bredemeyer		
CAPACITY OR TITLE  Agent		DATE  July 25, 1995		CAPACITY OR TITLE  Owner	
		DATE  July 25, 1995			

## WHEAT

'Winmaster 135' deleted per letter of 8-30-95

MAH 1-24-98

## Exhibit A:

## Origin and breeding History of the Variety

The parentage of Winmaster 135 is WM-135 (possibly the same as Weathermaster 135 or AH-135R), a non-registered variety of wheat which is found in various parts of Texas. This variety, which contains a significant number of variants (mostly awned off-types), has never been available as certified seed. Although it has been in existence for about 20 years, its origin is very vague. Weather Master Seeds, Inc. of Scott City, Kansas, apparently obtained the variety in the 1970's, but the company no longer exists and no one who was with the company and had information about the variety has been located. The description of a variety, AH-135R, from American Hybrids in Texas was provided by the Knasas Crop Improvement Association, but no ties can definitely be made to WM-135, nor can the company be located. The National Variety Review Board of the Association of Seed Certifying Agencies (AOSCA) has no registry information on WM-135 or a similar variety. Kenneth Goertzen, a plant breeder in Kansas, had no specific knowledge of the origin of WM-135, but had reason to believe that the variety had its origin in a variety introduced from Russia, Bezostaja.

In the Fall of 1988, the Bredemeyer Brothers of Winters planted a seed block of 50 acres of WM-135. Numerous variants (awned head types) appeared in 1989. Because of their involvement with trying to release another variety, WinTex (PVP), from a different parent line, little improvement to this line was done until 1992. In the Fall of 1992, a small amount of the original WM-135 selection was planted. This began the process of additional plant selections, selective conditioning, and purifying of the seed line, which was continued for three more generations. The primary selection was for large seed-heads and elimination of the awned variants, while secondarily selecting for superior grazing plants and grain yield characteristics. Maintaining the leaf and stem rust resistance and obtaining uniformity of plant height were additional characteristics which were obtained in the selection process.

## Exhibit A--Addendum

'Winmaster' wheat is a selection from a non-registered variety known as 'WM-135'. Attached is an affidavit from Mr. J. W. Vinson, who has the best knowledge of the background of the 'WM-135' variety. 'WM-135' is (1) very commonly planted in Texas, (2) a distinctive variety, not easily confused with other varieties, and (3) not claimed exclusively as to ownership. Therefore, we feel the variety is a public domain variety and we have traced the parentage of the specific variety 'WM-135' more than 20 years.

The 'Winmaster' wheat variety is very uniform in plant height at bloom and at maturity. Plant color, plant growth, development of leaves, and head emergence all are uniform. Maturity of the plant and color changes at maturity are very uniform. 'WM-135' has been observed by us for over 10 generations, with it being fairly uniform. With the selection of 'Winmaster,' the uniformity is enhanced somewhat, especially in less plant height variation. 'Winmaster' has been observed for 3 years after the initial selection, and it has virtually no variation of plant height at maturity. 'WM-135' has been a very stable variety, with as many as 20 generations having been planted from the original seed stocks and 'Winmaster' appears to also be a very stable variety after 3 generations of observation.

The variants which are in the 'WM-135' variety appear to be awned-type contaminants of other varieties and some awned-type varieties which may have crossed with the 'WM-135' variety. These were probably introduced in previous generations by poor handling methods of seed. Selection alone did not eliminate the awned heads from the 'WM-135' variety. Selection, selective conditioning, and roguing were all a part of the process of purifying the new line 'Winmaster'. Table 5 (attached) addresses the reduction in awned head incidence in the progressive generations of 'Winmaster' wheat development. Reducing the awned heads in the 'WM-135' variety was the main goal of this project--to less than 1:1000 plants (0.1%). This was accomplished in the 4th generation (1995) and we anticipate that the awned head incidence will continue to decrease in the breeders seed for two more generations.

## WHEAT

'Winmaster 135' deleted per letter of 8-30-95 MATH 1-24-8

Exhibit B:

Novelty Statement.

'Winmaster 135' is most similar to 'WM-135,' a non-registered cultivar of common wheat. 'Winmaster 135' differs from 'WM-135' in that it does not have awned variants. 'Winmaster 135' is 3 days earlier in maturity at 50% bloom than 'WM-135.' Also, the head shape of 'Winmaster 135' is strap, while the 'WM-135' is tapered.

## Exhibit B--Addendum

The incidence of awned heads as variants is shown in Table 5 (attached) for the progressive generations, as 'Winmaster' was developed. 'WM-135' has 8.5% awned heads at maturity. Through selections and conditioning, this has been reduced to 6:10,000 plants (0.06%) for the 'Winmaster' variety.

Table 4 reflects the relative maturity of 'Winmaster' to 'WM-135'. Using the ANOVA statistical procedure, this showed that the three day earlier maturity for 'Winmaster' vs. 'WM-135' is statistically significant.

Table 4. Relative Maturity for Selected Wheat Varieties at Winters, Texas.

Variety	Days at mid-bloom compared to TAM 101			Three Year Average
	1992	1993	1995	
Winmaster	+2	+3	+2	+2.33a
WM-135	+5	+6	+5	+5.33b

1) ANOVA was the statistical procedure used in this test.

Table 5. Awned Head Incidence in Progressive Generations of Winmaster Wheat Development at Winters, Texas.

Percent Awned Heads by Generation	Average of 3 counts per 10,000 plants per field			
	1989	1993	1994	1995
	8.5%	3.7%	0.5%	0.06%

## ANALYSIS OF VARIANCE TABLE

	Degrees of Freedom	Sum of Squares	Mean Square	F-value	Prob.
Between	1	13.500	13.500	40.500	0.0031
Within	4	1.333	0.333		
Total	5	14.833			

*Significant*

Coefficient of Variation = 15.06%

Var. 3	VARIABLE Number	No. 6 Sum	Average	SD	SE
1	3.00	16.000	5.333 <i>WM 133</i>	0.58	0.33
2	3.00	7.000	2.333 <i>Windmester</i>	0.58	0.33
Total	6.00	23.000	3.833	1.72	0.70
Within				0.58	

*per letter  
of 1-4-96**MAH  
1-24-96*

Bartlett's test

Chi-square = 0.000

Number of Degrees of Freedom = 1

Approximate significance = 1.000



EXHIBIT C

## TEXAS DEPARTMENT OF AGRICULTURE

9500267

SEED DIVISION  
AUSTIN, TEXASOBJECTIVE DESCRIPTION OF VARIETY  
WHEAT (TRITICUM SPP.)

TDA-S290

INSTRUCTIONS: See Reverse.

NAME OF APPLICANT(S)

Bredemeyer Brothers

Variety Name:

Winmaster 135

ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)

108 South Melwood

Winters, TX 79567

Date:

May 1, 1995

Signature of Applicant:

*Randall Conner, agent.*deleted  
per  
letter of  
8-30-95  
MAH  
1-24-96Place the appropriate number that describes the varietal character of this variety in the boxes below.  
Place a zero in first box (e.g. 089 or 09 ) when number is either 99 or less or 9 or less.

## 1. KIND:

1 1 = COMMON 2 = DURUM 3 = EMMER 4 = SPELT 5 = POLISH 6 = POULARD 7 = CLUB

## 2. TYPE:

2 1 = SPRING 2 = WINTER 3 = OTHER (Specify) 2 1 = SOFT 2 = HARD 3 = OTHER (Specify)2 1 = WHITE 2 = RED 3 = OTHER (Specify)

## 3. SEASON - NUMBER OF DAYS FROM EMERGENCE TO:

1 3 4 FIRST FLOWERING Depends on planting date/vernalization 1 4 5 LAST FLOWERING

## 4. MATURITY (50% Flowering):

0 5 NO. OF DAYS EARLIER THAN 2 1 = ARTHUR 2 = SCOUT 3 = CHRIS  
 NO. OF DAYS LATER THAN  4 = LEMHI 5 = NUGAINES 6 = LEEDS

## 5. PLANT HEIGHT (From soil level to top of head):

0 8 8 CM. HIGH  
 CM. TALLER THAN  1 = ARTHUR 2 = SCOUT 3 = CHRIS  
1 6 CM. SHORTER THAN 2 4 = LEMHI 5 = NUGAINES 6 = LEEDS

## 6. PLANT COLOR AT BOOTING (See reverse):

3 1 = YELLOW GREEN 2 = GREEN 3 = BLUE GREEN

## 7. ANTHUR COLOR:

1 1 = YELLOW 2 = PURPLE

## 8. STEM:

1 Anthocyanin: 1 = ABSENT 2 = PRESENT 2 Waxy bloom: 1 = ABSENT 2 = PRESENT  
1 Hairiness of last internode of rachis: 1 = ABSENT 2 = PRESENT 1 Internodes: 1 = HOLLOW 2 = SOLID  
0 3 NO. OF NODES (Originating from node above ground) 2 4 CM. INTERNODE LENGTH BETWEEN FLAG LEAF AND LEAF BELOW

## 9. AURICLES:

1 Anthocyanin: 1 = ABSENT 2 = PRESENT 1 Hairiness: 1 = ABSENT 2 = PRESENT

## 10. LEAF:

2 Flag leaf at booting stage: 1 = ERECT 2 = RECURVED 3 = OTHER (Specify) 2 Flag leaf: 1 = NOT TWISTED 2 = TWISTED  
2 Hairs of first leaf sheath: 1 = ABSENT 2 = PRESENT 2 Waxy bloom of flag leaf sheath: 1 = ABSENT 2 = PRESENT  
1 2 MM. LEAF WIDTH (First leaf below flag leaf) 2 4 CM. LEAF LENGTH (First leaf below flag leaf)

8

(cont'd other side)

9500261  
Variants: Winmaster may contain .1% awned heads and/or .1% red chaff types

# 11. HEAD

☐ 2 Density: 1 = LAX 2 = DENSE

☐ 2 Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE  
4 = OTHER (Specify) **RECEIVED**  
**USDA-AMS-PVPO**

☐ 2 Awnedness: 1 = AWNLESS 2 = APICALLY AWNLETED 3 = AWNLETED 4 = AWNEO

7 ☒ 1 Color at maturity: 1 = WHITE 2 = YELLOW 3 = PINK 4 = RED  
5 = BROWN 6 = BLACK 7 = OTHER (Specify): **TAN '95 AUG -8 A10:09 per letter MATH 1-24-96**

☐ 0 ☐ 9 CM. LENGTH

☐ 1 ☐ 0 MM. WIDTH

# 12. GLUMES AT MATURITY:

☐ 3 Length: 1 = SHORT (CA. 7 mm.) 2 = MEDIUM (CA. 8 mm.)  
3 = LONG (CA. 9 mm.)

☐ 3 Width: 1 = NARROW (CA. 3 mm.) 2 = MEDIUM (CA. 3.5 mm.)  
3 = WIDE (CA. 4 mm.)

☐ 4 Shoulder shape: 1 = WANTING 2 = OBLIQUE 3 = ROUNDED  
4 = SQUARE 5 = ELEVATED 6 = APICULATE

☐ 2 Beak: 1 = OBTUSE 2 = ACUTE 3 = ACUMINATE

# 13. COLEOPTILE COLOR:

☐ 1 1 = WHITE 2 = RED 3 = PURPLE

# 14. SEEDLING ANTHOCYANIN:

☐ 1 1 = ABSENT 2 = PRESENT

# 15. JUVENILE PLANT GROWTH HABIT:

☐ 1 1 = PROSTRATE 2 = SEMI-ERECT 3 = ERECT

# 16. SEED:

☐ 1 Shape: 1 = OVATE 2 = OVAL 3 = ELLIPTICAL

☐ 1 Check: 1 = ROUNDED 2 = ANGULAR

☐ 1 Brush: 1 = SHORT 2 = MEDIUM 3 = LONG

☐ 2 Brush: 1 = NOT COLLARED 2 = COLLARED

\* ☒ Phenol reaction (See instructions): 1 = IVORY 2 = FAWN 3 = LT. BROWN  
4 = BROWN 5 = BLACK

\* **DARK BROWN** **per letter MATH 1-24-96**

☐ 3 Color: 1 = WHITE 2 = AMBER 3 = RED 4 = PURPLE 5 = OTHER (Specify)

☐ 0 ☐ 7 MM. LENGTH

☐ 0 ☐ 3 MM. WIDTH

☐ 4 ☐ 6 GM. PER 1000 SEEDS

# 17. SEED CREASE:

☐ 2 Width: 1 = 60% OR LESS OF KERNEL 'WINOKA'  
2 = 80% OR LESS OF KERNEL 'CHRIS'  
3 = NEARLY AS WIDE AS KERNEL 'LEMHI'

☐ 1 Depth: 1 = 20% OR LESS OF KERNEL 'SCOUT'  
2 = 35% OR LESS OF KERNEL 'CHRIS'  
3 = 50% OR LESS OF KERNEL 'LEMHI'

# 18. DISEASE: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 2 STEM RUST (Races) **moderately resistant** ☒ LEAF RUST (Races) **moderately resistant**

☐ 0 STRIPE RUST (Races) ☐ 0 LOOSE SMUT

☐ 1 POWDERY MILDEW ☐ 0 BUNT

☐ OTHER (Specify)

# 19. INSECT: (0 = Not Tested, 1 = Susceptible, 2 = Resistant)

☐ 0 SAWFLY

☐ 0 APHID (Bydv.)

☐ 1 GREEN BUG

☐ 0 CEREAL LEAF BEETLE

☐ 1 OTHER (Specify) **Russian Wheat Aphid**

HESSIAN FLY  
RACES:

☐ GP

☐ A

☐ B

☐ C

☐ D

☐ E

☐ F

☐ G

# 20. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:

CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY
Plant tillering	WM-135	Seed size	WM-135
Leaf size	WM-135	Seed shape	WM-135
Leaf color	WM-135	Coleoptile elongation	WM-135
Leaf carriage	WM-135	Seedling pigmentation	WM-135

# INSTRUCTIONS

GENERAL: The following publications may be used as a reference aid for the standardization of terms and procedures for completing this form:

(a) L.W. Briggie and L. P. Reitz, 1963, Classification of Triticum species and Wheat Varieties Grown in the United States, Technical Bulletin 1278, United States Department of Agriculture.

(b) W.E. Walls, 1965, A Standardized Phenol Method for Testing Wheat Seeds for Varietal Purity, contribution No. 28 to the handbook of seed testing prepared by the Association of Official Seed Analysts. (See attachment.)

LEAF COLOR: Nickerson's or any recognized color fan should be used to determine the leaf color of the described variety.

EXHIBIT D

Farmers Seed and Supply  
108 South Melwood  
Winters, Texas 79567  
(915)754-5373

May 3, 1995

Mr. Charles A Leamons, Secretary  
State Seed and Plant Board  
P.O. Box 629  
Giddings, Texas 78942

Dear Mr. Leamons:

Enclosed is an application (original and 7 copies) for registration with TDA of a new variety of HRW Wheat--Winmaster 135. Along with the application is a narrative of the parentage and development of the variety, a description of the variety, and the area of adaptation. Also enclosed is a grower affidavit.

deleted  
per  
letter  
of  
8-30-95  
matt  
1-24-96

The objective description of the variety and other data will follow shortly. We have been delayed with this, since some of our data for 1995 is not consistent with previous year's information.

The Winmaster 135 variety has been selected and purified by the Bredemeyer Brothers over a period of 4 years. Farmers Seed and Supply will act as the sole distributing agent for the Bredemeyers.

We request that you consider this application at the next meeting of the State Seed and Plant Board. If you need additional information, please contact me.

Sincerely yours,



Randall Conner

Enclosures

TEXAS DEPARTMENT OF AGRICULTURE

9500267

APPLICATION TO THE STATE SEED AND PLANT BOARD AND  
TEXAS DEPARTMENT OF AGRICULTURE FOR APPROVAL OF A VARIETY UNDER  
THE TEXAS SEED CERTIFICATION PROGRAM

Name of applicant Bredemeyer Brothers

Address 108 S. Melwood Winters, TX 79567

Name of breeder (if different from applicant) \_\_\_\_\_

Address \_\_\_\_\_

A. Variety name or temporary designation Winmaster 135

*deleted per letter  
of 8-30-95 MATH  
1-24-96*

(Family, kind, genus and species)

Check box below where attachment is used to provide information requested. (See reverse side of form for instructions.)

B. ☒ Origin and breeding history of the variety.

C. ☒ (1) Botanical description of the variety.  
(2) Objective description of the variety.

D. ☒ Evidence (data, graphs, charts, pictures, etc.) supporting identity of the variety and any statements or claims made concerning its performance characteristics (e.g. yield, insect or disease tolerance, lodging).

E. ☒ Area of adaptation.

F. ☐ Procedure for maintaining stock seed classes and number of generations desired for multiplication of variety. If less than foundation, registered and certified, indicate why.

G. ☐ Description of how variety is to be constituted if a particular cycle of reproduction or multiplication is required.

H. ☐ Additional restrictions, if any, with respect to geographic area of seed production, age of stand, or other factors affecting genetic purity.

I. ☐ Sample of seed.

Will application be made to Plant Variety Protection Office? Yes ☒ No \_\_\_\_\_

If yes, will the application specify that the variety is to be sold by variety name only as a class of certified seed?

Yes ☒ No. \_\_\_\_\_

(Cotton varieties only) - If no Plant Variety Protection is applied for, do you request Texas protection?

Yes \_\_\_\_\_ No \_\_\_\_\_

Give names of certifying agencies expected to certify seed. Texas Department of Agriculture

Date May 3, 1995

*Randee Corner, agent*  
Signature of Applicant

TDA S279D

(cont'd. other side)

11

STATE SEED AND PLANT BOARD  
AND  
TEXAS DEPARTMENT OF AGRICULTURE  
AFFIDAVIT OF GROWER

The information submitted on the application form for approval of a variety under the Texas Seed Certification Program is true and correct to the best of my knowledge and belief on the variety indicated below;

Name of variety Winmaster 135

*deleted per letter of  
8-30-95 MAH 1-24-96*

Kind of crop or use designated (grain type sorghum, sorghum-sudangrass hybrid, field corn, cotton, etc.)  
HRW Wheat

Code description or other identifying information \_\_\_\_\_

Area of adaptation if limited in any way No limitation, but probably will be best  
adapted to Texas and Oklahoma.

**DECLARATION:**

I declare that this variety is new and different from any existing variety and is the product of a breeding program known to me, that the pedigree and origin are known to me and that it has not to my knowledge been sold nor marketed under any other name or designation.

Date May 3, 1995

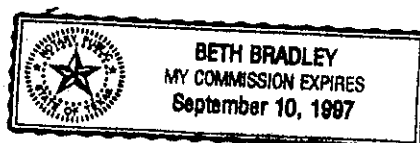
*[Signature]*  
Signature of Breeder or Grower

Bredemeyer Brothers

Firm Name

108 South Melwood Winters, TX 79567  
Address

Subscribed and sworn before me this 3rd day of May, 1995.  
Beth Bradley, Notary Public in and for Runnels County, Texas.



Winmaster ~~135~~deleted per letter of  
8-30-95; 1944-24-2

## A New Awnless Hard Red Winter Wheat

Winmaster 135 is a new awnless, hard-red-winter wheat which was developed by Rodrick Bredemeyer, Malcolm Bredemeyer, and Randall Conner of Winters, Texas. It is expected to be released to the public in the Fall of 1995.

Winmaster 135 features three outstanding characteristics which prompt its release. 1. It is awnless, which is a desirable characteristic for wheat graze-out. 2. It exhibits good leaf rust and stem rust resistance. 3. It has excellent grain and forage yield potential.

Parentage

The parentage of Winmaster 135 is WM-135 (possibly the same as Weathermaster 135 or AH-135R), a non-registered variety of wheat which is found in various parts of Texas. This variety, which contains a significant number of variants (mostly awned off-types), has never been available as certified seed. Although it has been available for about 20 years, its origin is very vague. Weather Master Seeds, Inc. of Scott City, Kansas, apparently obtained the variety in the 1970's, but the company no longer exists and no one who was with the company and had information about the variety has been located. The description of a variety, AH-135R, from American Hybrids in Texas was provided by the Kansas Crop Improvement Association, but no ties can be made to WM-135, nor can the company be located. The National Variety Review Board of the Association of Seed Certifying Agencies (AOSCA) has no registry information on

WM-135 or a similar variety. Kenneth Goertzen, a plant breeder in Kansas, had no specific knowledge of the origin of WM-135, but felt that the variety possibly had its origin in a variety introduced from Russia, Bezostaja 1.

### Breeding

In the Fall of 1988, the Bredemeyer Brothers of Winters planted a seed block of 50 acres of WM-135. Numerous variants (awned head types) appeared in 1989. Because of their involvement with trying to release another variety, WinTex, from a different parent line, little improvement to this line was done until 1992. In the Fall of 1992, a small amount of the original WM-135 selection was planted. This began the process of additional selections, selective conditioning, and purifying of the seed line, which was continued for three more generations. The primary selection was for large seed-heads and eliminating awned variants, while secondarily selecting for superior grazing plants and grain yield characteristics and maintaining the leaf and stem rust resistance. Uniformity of plant height was obtained also in the selection process.

### Performance

Winmaster 135 has shown excellent grain yields in 1993, 1994 and 1995. Yields have exceeded those of WM-135 in almost all tests. Test weights for Winmaster 135 have exceeded WM-135 and ratings for leaf rust have equaled or exceeded WM-135. The in-

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cidence of awned type heads in the tests have been under 0.1% and it appears that this level can be maintained through the certified class generation of seed increase.

### Maturity

The average heading date of Winmaster 135 is about the same as <sup>WinTex</sup> WM-135. It is about 2 days later than TAM 101 and about 3 days earlier than <sup>WM135</sup> WinTex at Winters, Texas. Winmaster ~~135~~ requires substantial vernalization and should not normally be planted after December 20 in most of Texas. It has excellent winterhardiness and a good winter survival rate.

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### Plant Type

Winmaster 135 is an awnless (actually awnletted), normal height, hard red winter wheat. The height is similar to Russian. Caddo, or Triumph 64. The plant has a blue-green color at booting, with a recurved, twisted, flag leaf. The stem has a waxy bloom present, with internodes being hollow. The heads are apically awnletted, dense, and <sup>strap</sup> ~~tapering~~ <sup>RC</sup>.

The glumes are long, with wide and square shoulders, and have an acute beak. The kernels are ovate, with rounded cheek and short brush. Winmaster 135 contains less than one awned plant in 1000 plants.

Winmaster 135 is not normally susceptible to lodging. It is prostrate in the juvenile stage of growth. Winmaster 135 exhibits a yellow anther at blooming. Winmaster 135 is a white chaff wheat.



### Disease and Insect Resistance

Winmaster 135 has shown excellent leaf rust resistance during its development, especially in 1995. Indications are that Winmaster 135 is currently resistant to the prevalent races of leaf rust fungus at Winters, Texas. There was some infection of Powdery Mildew in 1995 and indications are that the variety is resistant to existing strains of stem rust. No evaluations have been made for other diseases.

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Winmaster 135 is susceptible to most biotypes of greenbug and to Russian Wheat Aphid. It appears to be susceptible to Hessian Fly.

### Quality

Samples are being submitted to USDA for classification as to hardness and to the Texas A & M Cereal Crop Quality Lab at College Station for milling and baking characteristics.

### Area of Adaptation

Winmaster 135 appears to be adapted to any area which currently produces WM-135 or WinTex wheat. These varieties are currently produced from the Texas Panhandle to Oklahoma and Kansas to the Uvalde and Austin areas of Texas. It is produced from the Texas Blacklands to Eastern New Mexico.

Source of Seed

Breeders seed will be maintained by Farmers Seed and Supply, 108 South Melwood, Winters, Texas 79567. (915)754-5373. Certified Seed should be available in Fall 1995 from Farmers Seed and Supply. Foundation and Registered Seed will be available only under licensing agreement.

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TEXAS DEPARTMENT OF AGRICULTURE  
SEED LABORATORY

9500267  
TEST NO.

241 E. MCNEILL STEPHENVILLE, TX 76401  
(817) 965-7333

S 70785

DATE RECEIVED: 05/22/95  
TESTS REQUESTED: TETRAZOLIUM TEST / PHENOL TEST

LOT NO.: BR-94  
TOTAL COST: \$ 11.00

DESIGNATED BY SENDER: WINMASTER 135 WHEAT

SENDER: FARMERS SEED & SUPPLY, INC.  
108 SOUTH MELWOOD  
WINTERS, TX 79567

ACCT. NO. 18897  
TAXPAYER/OUTLET NO.:

283	% PURE SEED	% INERT MATTER	% OTHER CROP SEED	% WEED SEED	% GERMI- NATION	% HARD SEED	% DORMANT SEED
Wheat	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NOXIOUS WEED  
SEED PER POUND:

OTHER CROP SEED:

WEED SEED:

ADDITIONAL INFORMATION:

T.Z. TEST = 95% GERMINABLE SEED

PHENOL TEST = 100% BROWN-BLACK

REGION NUMBER:

DATE COMPLETED: 1  
05-30-95

XXXXXX Kay Helms  
Seed Analyst

The above analysis is accurate for the sample received. Unless otherwise indicated, variety name shown is that furnished by the sender and no attempt was made to distinguish other similar varieties necessitating field or growth tests.

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PVP Application No. 9500267 WHEAT, "Winmaster"  
Table 1. Properties of two wheat samples from Farmers Seed and Supply.

PROPERTIES		WHEAT SAMPLES	
		Winmaster	2158
Single Kernel Characterization Test <sup>a</sup>	Hardness index	65.3	53.7
	Diameter (mm)	2.7	2.2
	Weight (mg)	36.3	28.4
	Hardness (class)	HARD	HARD
	Classification distribution	001-007-022-070-01	010-019-033-038-02
FLOUR	Sample wt (g)	800	800
	Flour wt (g)	507.9	510.7
	Yield (%)	63.5	63.8
	Moisture (%)	12.31	12.82
	Protein (% as is)	9.72	10.22
	Protein (% , 14% mb)	9.53	10.08
MIXOGRAPH <sup>b</sup>	Water Absorption (%)	59.7	60.2
	Mixing time (min:sec)	5:30	4:00
	Quality	Good-Fair	Good-Fair
DOUGH	Water Absorption (%)	59.7	60.2
	Mixing time (min:sec)	5:38	3:30
	Proof Height (cm)	8.0	8.1
BREAD <sup>b</sup>	Loaf Height (cm)	9.7	10.3
	Volume (cc)	813	918
	Crumb Texture	Good	Good

<sup>a</sup> Values are average of 300 grains tested

Classification number assigned to each sample indicates the following

AAA=%of kernels with hardness index  $\leq 33$

BBB=%of kernels with hardness index  $> 33$  and  $\leq 46$

CCC=%of kernels with hardness index  $> 46$   $\leq 59$

DDD=%of kernels with hardness index  $> 59$

EE= Classification

Where: Hard= 01, 02

Mixed= 03

Soft= 04, 05

<sup>b</sup>Quality and crumb texture were subjectively rated as Good, Fair, Poor and Questionable

## Exhibit D--Addendum

'Winmaster' wheat was developed by Rodrick and Malcolm Bredemeyer of Winters, Texas, from a selection of 'WM-135' planted in 1988. Selective conditioning, rogueing, and purifying of the line has been conducted by the Bredemeyer Brothers from 1992 to present.

Randall Conner has been involved in securing data, in registration of the new variety, and in making application for PVP. Randall Conner, through Farmers Seed and Supply, has the responsibility for marketing the new variety. He had no direct involvement in the actual selection, propagating, or development of 'Winmaster' wheat, and makes no claim to the ownership of the variety.

## Exhibit D--Addendum 2

Attached is Table 1, which shows Yield Data for 'WM-135' and 'Winmaster' for three years. The data was analyzed using ANOVA statistical procedures. Part of this information was not available at the time of the original PV application. 'Winmaster' shows a 4.8 bushel per acre yield advantage over 'WM-135', but with a limited number of trials, statistically there is no significant difference indicated.

In Table 3, Yield Data is compared for two locations in 1995. 'Winmaster' shows a 4.6 bushel per acre yield advantage over 'WM-135', but due to limited data points, there was no statistical significance.

'Winmaster' has shown to out-yield 'WM-135' in these and other non-replicated trials, but statistically this cannot be shown and no claim for yield as a novelty of the variety is made at this time.

In Table 2, Leaf Rust Ratings were compared for 'WM-135' and 'Winmaster' on four occasions. One of the secondary goals of this project was to maintain the good leaf rust resistance that 'WM-135' exhibits. Although 'Winmaster' shows a lower leaf rust rating, statistical analysis shows no significant difference. It should be noted that races of leaf rust can change very quickly and what has shown to be very tolerant in the 'WM-135' and 'Winmaster' varieties, could change quickly with the introduction of new races of leaf rust.

## YIELD DATA FOR SELECTED WHEAT VARIETIES

YEAR	<u>WINTEX</u>	<u>WINMASTE</u>	<u>WM-135</u>	<u>TAM 101</u>
1992	40.1	36.1	24.1	34.8
1993	44.3	43.9	44.9	24.3
1994	NO DATA DUE TO EXTREME DROUGHT			
1995	DATA PENDING			
AVERAGE	42.2	40.0	34.5	29.6

## YIELD IN BUSHELS PER ACRE

## LEAF RUST RATINGS FOR SELECTED WHEAT VARIETIES

DATE	<u>WINTEX</u>	<u>WINMASTE</u>	<u>WM-135</u>	<u>TAM 101</u>
4-07-92	30	25	25	50
4-18-93	5	5	10	15
1994	NO DATA DUE TO EXTREME DROUGHT			
4-18-95	20	20	20	20
5-16-95	20	10	20	35
AVERAGE	19	15	19	30

## RATINGS IN PERCENT OF FLAG LEAF INFECTED

## SOURCES:

MR. MIKE MAULDIN, CEA, BALLINGER, RUNNELS COUNTY, TEXAS  
 MR. RICK MINZENMAYER, BI-COUNTY ENTOMOLOGIST (IPM)  
 BALLINGER, RUNNELS COUNTY, TEXAS  
 MR. RODRICK BREDEMAYER AND MR. MALCOLM BREDEMAYER  
 PLANT BREEDERS, WINTERS, TEXAS  
 MR. RANDALL CONNER, FARMERS SEED AND SUPPLY, WINTERS, TEXAS

Table 1. Yield Data for Selected Wheat Varieties at Winters, Texas.

Variety	Bushels/acre by Year			
	1992	1993	1995	AVE.
Winmaster	36.1	43.9	34.2	38.1a
WM-135	24.1	44.9	31.0	33.3a

1) ANOVA was the statistical procedure used in this test.

Table 2. Leaf Rust Rating for Selected Varieties at Winters, Texas.

Variety	% Flag leaf infected				
	4/07/92	4/18/93	4/18/95	5/16/95	Average
Winmaster	25	5	20	10	15a
WM-135	25	10	20	20	18.75a

1) ANOVA was the statistical procedure used in this test.

Table 3. Yield Data for Selected Wheat Varieties at Two Locations during 1995, Winters and Abilene, Texas.

Variety	Location		Average of two locations
	Winters	Abilene	
Winmaster	34.2	40.3	37.25a
WM-135	31.0	34.7	32.85a

1) ANOVA was the statistical procedure used in this test.



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## WHEAT

'Winmaster 135'

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## Exhibit E:

## Statement of the Basis of Applicant's Ownership

'Winmaster 135,' the unique variety for which Plant Variety Protection is hereby sought, was developed by Rodrick and Malcolm Bredemeyer of Winters, Texas. By agreement with Randall Conner and Farmers Seed and Supply, a Texas Corporation, who are the sole marketing agents for this variety, all rights to the ownership of the variety remain with Rodrick and Malcolm Bredemeyer.